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ABSTRACT

In this paper an attempt was made to search the literature for studies which would indicate whether or not sex-role stereotyping (via language) has been examined for its impact on people who take interest measures. A careful scrutiny revealed no empirical data to evaluate the hypothesis that the linguistic structure of items does or does not influence results on career interest inventories. Conclusions drawn from other fields (applied sociolinguistics, social psychology, clinical psychology) strongly support the need for the linguistic aspect of inventories to be examined via a series of studies. The American Psychological Association and National Vocational Guidance Association guidelines for the construction of tests and for career information materials also support the need for such a series of studies in the interest of insuring unbiased tests. (Author)

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Face Validity of Interest Measures: Sex Role Stereotyping

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Face validity, as defined by Cronbach (1970), refers to an elusive aspect of measurement. Face validity does not consist of what the test can be empirically proven to examine, but what it appears superficially to measure. Does the test "look valid" to the examinees and to the test administrators?

This aspect of validity is viewed as a public relations or rapport-insuring phenomenon. It is more difficult than the other forms of validity (concurrent, predictive, content, construct) to evaluate. Yet the difficulty in assessing the face validity of tests does not imply that it is unimportant. (A better term for face validity might be overt bias.) If the content of the test appears irrelevant, silly or childish, it is unlikely that it will function effectively in practical situations. The vital component to useful test administration, the cooperation of the test takers, will quite likely be absent.

The particular focus of this paper is on the relationship of the face validity or general appearance of interest measures as it may interact with sex role stereotyping. Specifically the concern focuses on the linguistic aspects of interest measurement and the possible effects on the test-taker. Does the instrument convey gender-appropriateness or sex-bias for occupations, activities or interests through the use of certain sex-linked words such as, "he", "she", "policeman", or "saleslady"? Does it present females or males in a stereotyped manner, lacking in individuality, or conforming to an unvarying pattern of behavior (Tittle, 1973)? If it does carry these types of items, do they affect the responses of the test takers? Do certain phrases commonly found in interest mea-

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sures, "do you like to...", "have never done..." preclude expression of interest in exploratory experience in an area the test-taker has had no opportunity, earlier, to explore (e.g., girls tinkering with an auto engine)? Additionally, the scope of this project includes the examination of the items selected by interest test constructors to attempt to measure whether the item content itself may be artificially restricting the response patterns of the test takers (e.g., within the realm of mechanical activities, is adjusting the timing on an automobile engine as useful an indicator of mechanical interest as re-wiring a faulty electric plug or repairing a child's toy?). The final aspect to be examined in this paper is the extent to which existing American Psychological Association and National Vocational Guidance Association guidelines for tests and career materials can be applied to identify sex-bias in career interest inventories and their components.

Review of the Literature

As previously mentioned, the effect of the gender-dominant aspect of test items is an elusive dimension. A careful review of the literature in psychological measurement revealed no empirical studies specifically concerned with this aspect of item construction. Indeed, only a few studies appeared (Strong, 1962; Kuder, 1970) which offered standards for the construction of good and poor interest inventories. Neither of these two articles specifically referred to the sex role aspects of interest measurement.

Other disciplines have investigated the aspects of sex role stereotyping. Some have measured the concept conveyed by the use

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of the word "man", others have examined the language itself for evidence of subtle communications about the appropriateness of certain behaviors for men and women as they are reflected in the culture, while still others have described behaviors and observed the different reactions people have to these behaviors as a function of the sex to which they are attributed. These studies will be examined to assess the possible impact of sex-linked terms on interest inventories and their ancillary components.

Schneider and Macker (1973) evaluated the perceptions of sociology students to the word "man" as used in introductory textbooks. Their results indicated that the term "man" was construed by their subjects to mean "male", not human beings of both sexes.

Bem and Bem (1973) explored the effect of sex-segregated want-ads (those indicating "Jobs - Male Interest" and "Jobs - Female Interest") on the expression of preference for job application. In this study, the job descriptions themselves, in compliance with federal and state laws, did not express sexual discrimination unless it was a "bona fide occupational requirement". Their results, using a sample of female subjects, showed that the sex-segregation of want-ads discouraged women from seriously considering the jobs classified under the heading, "Male Interest". When the jobs were segregated and labeled on the basis of sex, only 46 percent of the subjects were as likely to apply for the "Male Interest" jobs as the "Female Interest" jobs. When these same jobs appeared in an integrated, alphabetical listing, with no reference to sex, fully 81 percent of the women preferred the "Male Interest" jobs to the "Female Interest" jobs.

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Applied socio-linguists have also examined the sex role components of language. Farb (1974) documented how the English language is a "sexist language that expresses stereotyped attitudes toward one sex at the expense of the other" (p. 142). He cited several ways in which the language gives unequal treatment to the two sexes:

> "The Bible regards Eve as merely an offshoot from Adam's rib--and English follows suit by the use of many Adam's-rib words. The scientific name for both sexes of our species is the word for only one of them, Homo, "man" in Latin; our species is also referred to as human (derived from Homo) or mankind, two other words which similarly serve to make women invisible. The average person is always masculine (as in the man in the street) and so is the hypothetical person in riddles and examination questions (If a man can walk ten miles in seven minutes, how many miles can he walk in twelve minutes?). The word he is often used as a common gender pronoun, even though it is possible that a female is being referred to (as When the vice-president of the company came to town he...). If the antecedent is a high prestige occupational role, such as vice-president, manager, doctor, director, and so forth, then the pronoun is likely to be he whereas if the antecedent is a secretary, nurse, or elementary school teacher, the pronoun is apt to be she (p. 141)."

> "Even when the sexism is not built into the grammar and usage...the speech community often regards masculine values as the norm. Words like master and father have traditionally been those of leadership and power -- as in master of my fate and the father of modern science -- while feminine words are used to imply unpredictability or treachery, which is one reason why the U.S. Weather Bureau has given feminine names to hurricanes. Heir, poet, laundry worker, singer, and Negro are sexually neuter words in English and therefore they should apply equally to males and females. Yet, when referring to females, these words are often qualified to heiress, poetess, laundress, songstress and Negress, as if males represented the standard and females a deviation from it (p. 142-143; underlining used to represent the italics of the author)."

This pervasive linguistic discrimination has several consequences. It would, of course, be unjustifiable to lay the responsibility for sex discrimination entirely on language, or on the

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linguistically supported notions of male supremacy. There are other factors, but they are beyond the scope of this paper.

The direct result of gender-linked occupational descriptions or titles has, however, received little or no empirical testing, rather a phenomenal discovery! Not that this has kept some agencies or publishers from acting on the assumption that it does have influence. The Department of Labor has recently (1973) announced the adoption of changes in 52 sex-stereotyped job titles in the Unites States Census Bureau's Occupational Classification System to help eliminate the concept of "so-called 'men's jobs' and 'women's jobs'" (1973). The assumption behind these changes follows the logic that it is unreasonable to expect women to apply for job openings advertised for foreman, salesman, or credit man and that it is equally unreasonable to expect men to apply for job vacancies calling for maids, laundresses, or airline stewardesses. Scott, Foresman and Company (undated) have also issued a policy statement regarding guidelines for non-sexist descriptions of behavior and for the inclusion of women and men in non-stereotyped illustrations. The results of an American Psychological Association authorized task force (Birk, et al., 1973), after reviewing many psychology texts commonly used in graduate education, included in its guidelines several recommendations to counter the over-use of the male gender in writing style and to counter the notion that certain behaviors are automatically sex-linked.

In summarizing the area of the effect of the language used in interest inventories as a potential vehicle for perpetuating sex bias, the following can be stated:

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1) no empirical test of the influence of labeling occupations, interests or activities as gender specific has been reported within the field of occupational interest measurement;

2) investigation in other disciplines strongly suggest that this variable may have impact, although subtle, on the responses people make to questions about their vocational or vocationally related interests;

3) the potential hazards of gender-specification would suggest that all cautions should be taken in the construction of interest measures and their related components to insure that no "sex-appropriateness" be conveyed.

Evaluation of Interest Measures

In evaluating interest inventories for the presence of sex-bias, three instruments will be scrutinized: The Strong-Campbell Interest Inventory (Campbell, 1974, in press), the Kuder Occupational Interest Inventory, Form DD (Kuder, 1971) and the Self-Directed Search (Holland, 1971).

Strong-Campbell Interest Inventory

The new "unisex" Strong-Campbell Interest Inventory (SCII) embodies many changes from the old Strong Vocational Interest Blank. Although it is currently not in use by counselors (and with the publication date set for mid-1974, it probably will not be extensively utilized until early 1975), it represents perhaps most dramatically the response of one test constructor to charges of sex bias (Huth, 1973, a; Huth, 1973, b; Schlossberg and Goodman, 1972). In the SCII manual (1974, In press), Campbell lists

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the alterations made in an attempt to "sexually neutralize the inventory."

For the purposes of this paper, only those alterations concerning sex-bias will be considered. Under this rubric fall the efforts to combine the two booklets into one (thus avoiding the infamous "pink and blue" controversy), to eliminate explicitly sexist items (e.g., Do you like stag parties?), to eliminate references to gender in occupational titles (e.g., police officer as opposed to policeman), to bridge traditional male-female occupational separations (e.g., male elementary school teachers) and to drop outmoded scales (e.g., the Masculinity-Feminity scale).

Considering these points in reverse order, Campbell is to be congratulated for eliminating the Masculinity-Feminity scale, a measure frequently misinterpreted and possessing a plethora of surplus meaning. Constantinople's (1973) excellent review of the complicated concept of M-F clearly supports the omission of such an ambiguous scale. As Diamond (1972) remarked, the use of the masculinity-feminity scale in interest measurement is "an idea whose time has passed."

Bridging the traditional roles in occupational choice conveys the philosophy that occupational choice should be made on the basis of the individual's talents and interests, not on the basis of what fields have been dominated by women or men. Yet, in the anticipated profile (Campbell, 1973), the occupational groupings with which an individual's pattern of interests will be compared will carry an "M" or "F" label. Although this labeling is designed to indicate the sex of the norm group, not the appropriate sex for the occupa-

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tion, it may be a dangerous labeling, subject to misinterpretation. Not all the occupations with which the test-takers' scores are compared will carry both "M" and "F" labels. As Tittle (1974) notes, the labels may convey to women that there are occupations which are still to be viewed as the purview of one or the other sex. Campbell (1972) does not refute the Schlossberg and Goodman (1972) charges that adequate samples of men and women would be available to provide data on occupations currently reserved for one sex on the SCII.

Campbell's efforts to eliminate gender titles in occupations also deserves applause. It is beyond the scope of this paper to delve into all the possible socio-cultural reasons which could explain why women might react to sex-linked occupational titles in a manner that would limit their vocational choices. Previously cited research (Bem and Bem, 1973) indicates that this, for whatever reasons, does occur. Removing this possible source of bias appears to be a reasonable course.

Excising the specific sexist items is a step, long overdue, while the combination of the booklets quite possibly may be one of those unobtrusive social communications (Webb, Campbell, Schwartz, Sechrest, 1966) which may convey a new view of the occupational world, one in which women's career goals are valued as much as men's.

The Kuder Occupational Interest Survey

The Kuder Occupational Interest Survey (KOIS), Form DD, has been criticized in much the same manner as the old SVIB, (Tittle, 1974). Recent information (Diamond, personal communication, 1974)

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reveals that the KOIS is now undergoing substantial revision. No longer will women's expressed interests be compared only on the 57 female-normed occupational scales. The controversial "Maxine Faulkner" profile in the interpretive leaflet is being replaced by one which would allow a woman's interest in traditionally male dominated fields to emerge. However, the profile may still convey the "maleness" or "femaleness" of the occupations with which the interest patterns of test-takers will be compared, unless they clearly understand the difference between norm group designation and availability of the occupations to both sexes. How or whether this profile structure will affect career choices remains a question. The revision in the student's interpretive leaflet which addresses some of the current differences in socialization for boys and girls are a welcome addition (Diamond, personal communication, 1974).

In general, the KOIS is free from gender-linked items. A few remain, however. Item #56 asks how a person feels about being "the chairman of a committee to plan a dinner for a special event"; item #77 asks a similar question about being the chairman of a club committee to plan programs. It would appear worthwhile to alter these items to a more sexually neutral term, e.g., chair, chairperson. The question regarding the phrasing of items ("have you ever...", "do you dislike...") has been eliminated for consideration of the KOIS. Test takers are asked to indicate what activities they prefer to do. This style of questioning saves the instrument from measuring the socialization of the test takers or the opportunities they may have had to experience different activities

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and, thus, seems fairer to both sexes.

The Self-Directed Search

The Self-Directed Search (SDS) is a "self-administered, self-scored, and self-interpreted vocational counseling tool" (Holland, 1971, p. 3). It is very dissimilar to the vocational interest surveys previously examined, in that it measures competencies as well as interests and can be taken and scored without benefit of any counselor. Recently, Pirtle (1974) has suggested several areas of possible sex-bias in the SDS. Her criticisms focus on the sex-bias conveyed in the occupational titles of the "Occupations Finder" and in the activities presented under the categories "Realistic" and "Conventional" of the test booklet.

Pirtle's comments on the occupational titles follows the assumption that any occupation with the suffix "-man" (e.g., mailman) may convey a vocationally "off-limits" message to women test-takers. She also suggests that a major source of test bias lies in the SDS itself. The activities listed under the "Realistic" heading are those to which many males have been exposed via shop courses in high schools, activities to which females have had only limited exposure. As the directions on an earlier form of the SDS require that the activities are not counted if they are "disliked" or if they have "never been done" by the examinee, it would appear that the scores for males and females could be based on two separate standards of experience. Males could have been exposed to wood or metal working, have decided that they do not enjoy this activity and, therefore, mark their SDS accordingly. Females, faced with the same directions, may never have experienced

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an activity and, therefore, would be forced to respond in the same manner as the male. Low scores on the "Realistic" category for males and females could not be a function of identical reactions to the same type of activities. The SDS is undergoing alteration in it's directions (Randour, personal communication, 1974) which may ameliorate some of these difficulties.

In a reverse manner, the same results could occur for males and females in their responses to activities listed under the "Conventional" category. The activities listed under this section are mostly clerical, or clerically related. Many females and few males have had experience with secretarial jobs. Therefore, the basis for receiving a low score on the "Conventional" category could also come from different experiences, not from the same reaction to an identical experience.

Holland (1974) has recently responded to the question of systematic bias in the delivery of vocational services. While his article did not address Pirtle's comments, several of his points seem relevant.

> "The key assumption...is that a general perspective of bias will be more helpful for everyone (consumers, practitioners, developers and publishers) than a continuation of instrument specific discussions or assessments of test bias based on personal opinion (p. 210)."

In many ways his position appears cogent. Indeed, empirical evidence of systematic bias is much more useful than a mere proliferation of opinion. Additionally, Holland and his associates have attempted to examine the SDS for the possibility of sex-bias. Zender and Schnuelle (1972) found that the SDS did significantly expand the career options considered by both males and females,

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but essentially within the same categories. Holland does not report, however, any specific studies designed to test Pirtle's charges. Holland's preference for empirical testing of the possibility of sex-bias in instruments is a bit confusing in light of his own armchair evaluations of the KOIS, SVIB, and the SDS (1974).

Nonetheless, his general point is quite reasonable. Indeed, this present paper would have been much easier to draw together if such data did exist. Unfortunately, or perhaps, revealingly, it does not.

Holland (1974) also expresses the position that vocational information services may be receiving too much credit (blame?) for their role in perpetuating the socialization processes which affect the career choices of both men and women. Perhaps his disclaimer is well-taken. Surely the sex-role stereotyping an average 20 year old has experienced via schoolbooks (Weitzman, et al., 1972), children's readers (Frasher and Walker, 1972; Key, 1971; Weitzman, et al., 1973), instructional materials and literature (Grambs, 1972), and even occupational information (Birk, Cooper and Tanney, 1973), will not be instantly undone by unbiased vocational service. However, difficult as this task might be, any vocational service can continue the tradition of sex-bias by abandoning responsibility, or by proclaiming that it is only measuring or encouraging an individual to utilize the experiences accrued through his or her socialization, even though that socialization may have been sex-role stereotyped. To dismiss the effects of socialization on career choice seems, at best, naive, and at worst, an admission that the occupational status quo is an acceptable state for all human beings.

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This occupational status quo may be acceptable for males. For females, the vocational opportunities may be a bit more limited. As vocational measures are designed, at least partially, to facilitate one's entry into a satisfying career, what is the current situation women are experiencing?

Bergman (1973) reviews the contemporary economic position of women: 1) women's unemployment is 35 percent above men's and the male-female unemployment differential is getting worse; 2) women's earnings are 50 percent of men's and the trend of women's to men's wages is downward; 3) there has been virtually no progress in breaking down occupational segregation despite five years of campaigning by the women's movement; and 4) millions of women who live in households without men are in dire material need.

She further elaborates on the reasons behind these rather dismal statistics:

> "The major reality behind the inferior and worsening relative position of women in the labor market is the persistence of employer's notions about which kinds of jobs are 'women's work' and which kinds of jobs are 'men's work'. The direct result is an extreme degree of occupational segregation; currently about 70 percent of women work in occupations in which women predominate, or are over-represented and about 70 percent of men work in occupations in which men predominate. Every dicennial census since 1890 has shown a rise in the proportion of women who are in the labor force, yet the notions of most employers about what kinds of jobs are appropriate for women have changed hardly at all. In 1890 women were 'in their place' in clerical jobs, in elementary teaching, in nursing, in light factory work, as retail sales clerks, in domestic work. The same list is appropriate today although since 1890 women's labor force participation has grown from 18 percent to 44 percent and women have gone from 17 percent of the total labor force to 37 percent. Despite some expansion in demand within some women's fields, the inevitable result has been the overcrowding of those relatively few jobs in which women are unreservedly

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acceptable.

> Of course, many women have also considered it natural to be confined to 'women's jobs', and act accordingly, but increasingly many women do not have these inhibitions and the major resistance to change has been on the part of employers. If the bars come down to women's full participation in all kinds of jobs, most women would be delighted.
>
> Overcrowding in the few 'women's' occupations translates into lower wages and higher unemployment rates for women. The demand for women's labor is kept artificially low because of their virtual exclusion from certain fields -- medicine, law, engineering, dentistry, supervisory and executive positions, the crafts -- and the supply of women to the few fields where they are welcomed is artificially increased (p. 1-2)."

With this type of bias confronting women in the working world, it seems all the more urgent to expunge whatever sex-role stereotyped messages they may be receiving via vocational information or interest measures.

Summary, Conclusions, Hypotheses and the Need for Further Research

In evaluating the SCII, KOIS and the SDS, it seems apparent that the constructors of these instruments are making alterations to express the persuasion that no occupations are, ipso facto, reserved to one sex alone. Assuming the vulnerability, particularly of women, to this suggestion, no effort seems unreasonable to request of test constructors within the domain of the linguistic or verbal communications conveyed to test-takers. Therefore, it appears logical to suggest that any manifestations of gender-appropriateness (in the items, in the profiles) should be expunged.

Additionally, it appears relevant to attempt to measure what communications those who take interest inventories receive from the experience. Holland (1974) has suggested several ways for the

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detection of systematic bias in the delivery of vocational services. He also has outlined numerous areas where research into the area of vocational behavior is needed. To summarize his suggestions, Holland feels research is needed via evaluative studies to develop a clearer knowledge of how vocational inventories and their revisions, as well as other interventions, affect people; theoretical and substantive studies are needed to develop a better knowledge of vocational aspirations - especially to determine the potent influences at the younger age levels; necessary also are longitudinal studies of persons who have made the transition from female-to-male dominated jobs or vice versa; comparison studies of men and women holding the same jobs would also be useful; studies comparing the current theories of careers to men and women in the same occupation are quite timely; experimental tests of various types of training materials used to identify women with skilled trades talents are necessary; follow-up studies of school systems with no restrictions on course selection need to be made to evaluate their effect of the heterogeneity of vocational aspirations; measurements are needed of the effect of parents without narrow role preferences on their childrens' vocational choices; communities which offer a variety of nondiscriminatory part-time work activities for boys and girls should be determined and the effect of these experiences on the vocational aspirations of the children should be measured; and current non-biased brochures and auxilliary materials should be assessed for their influence on current interventions. To this list perhaps should be added studies which would assess if the phrases used to currently assess interests do

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bias the replies of women or men (e.g., do they respond differently to requests for activities they "dislike" versus activities they "never have done"?).

APA and NVGA Test Standards

In attempting to ascertain how the American Psychological Association and the National Vocational Guidance Association test standards might apply to the determination of overt sex-bias in career interest inventories and their components, these two documents were reviewed (APA Standards for Educational and Psychological Tests, pre-publication copy, 1974; National Vocational Guidance Association Newsletter, 1973). Ironically, from the perspective of this paper, both documents utilized the third person pronoun "he" when referring to the test developer or user. The APA standards used both "he/she" only when referring to the test taker.

The guidelines may be extrapolated to interest measurement. The NVGA guidelines recognize that deprivation with respect to certain aspects of human development can retard development in other areas. Although the document (NVGA) does not elaborate on the types of deprivation which can occur, it seems reasonable to infer that the gender-limiting activities frequently experienced by women and men may well affect their ability to make adequate occupational choices. Test developers need cognizance of this fact in designing their instruments. One other of the NVGA guidelines also seems particularly relevant:

> "The nature of guidance for career development...may include career guidance materials which insure that

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> each individual considers the possible and even predictable value changes in society which could affect a person's life (p. 6)."

Adhering to this guideline could insure proactive measures to the entry of women into atypical careers. Perhaps much of the anguish and waste of real human potential (Bergman, 1973) would be avoided by following both the spirit and the letter of this dictum.

The APA Standards for Educational and Psychological Tests appear to offer several clear measures for the identification of overt sex bias in career interest inventories or their components. Standard A1.1 states:

> "If information needed to support interpretations suggested in the manual cannot be presented at the time the manual is published, the manual should satisfy the intent of standard A1. by pointing out the absence and the importance of this information." ESSENTIAL

As has been repeatedly stressed in this paper, the impact of gender-linked terms on the responses of test takers has not been explicitly measured. This guideline would seem to make it incumbent on test constructors to include this information in their manuals.

Standard A3. also seems relevant to the issue of the necessity for insuring no possible sex-bias. It stresses the necessity for frequently re-norming tests, an issue quite relevant to the measure of women's vocational interests.

> "The test and its manual should be revised at appropriate intervals. The time for revision has arrived whenever changing conditions of use or new data make any statements in the manual incorrect or misleading." Very Desirable

Guideline B1.2 also appears to caution test constructors to be vigilant and explicit in warning test users of sex bias in the

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reporting of scores.

> "The manual should draw the user's attention to data that especially need to be taken into account in the interpretation of test scores." Very Desirable

Guideline B1.3 is even more explicit in insisting that test constructors and users be watchful of items (e.g., certain sex-linked experiences?) which may artificially influence scores.

> "The manual should call attention to marked influences on test scores known to be associated with region, socio-economic status, race, creed, color, national origin or sex." ESSENTIAL

Guideline E7.41 reiterates the need for frequent re-norming of criterion groups, stating that:

> "Validation reports should be clearly dated, with the time interval given during which the data were collected." ESSENTIAL

The additional comment (included in the Standards) to this guideline stresses its appropriateness to the area of interest measurement of women where

> "...the validity (of the test) may deteriorate over time; in employment testing, for example, changes in jobs, work aids, and in the ability levels of the applicant populations tend to change the circumstances in which validity information is developed."

Perhaps the most telling suggestion of the list of guidelines is the following, E9., which request that all aspects of bias be investigated, a clear charge of responsibility to test constructors and users.

> "A test user should investigate the possibility of bias in tests or test items. Wherever possible, there should be an investigation of possible differences in criterion related validity for ethnic, sex or other subsamples that can be identified when the test is given. The manual or research report should give the results for each subsample separately or report that no differences were found." ESSENTIAL

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Guideline E12.2 also requires that:

> "Test content should be examined for possible bias." ESSENTIAL

This item is further explained in the Standards by noting that "bias may exist where items do not represent comparable tasks and therefore do not sample a common performance domain for the various subgroups." Pirtle's (1974) comments regarding the possible bias in the SDS seem to fall within the domain of this guideline.

Guideline G4. further demands sensitivity on the part of test users to possible allegations of bias.

> "Test users should seek to avoid bias in test selection, administration, and interpretation; they should try to avoid even the appearance of discriminatory practice." ESSENTIAL

Regarding the selection of items to measure interests, guideline J1.1 reminds test users to:

> "...consider the total context of testing in interpreting an obtained score before making any decisions (including the decision to accept the score)."

The comment which follows this guideline cautions test users to be aware that test scores may well be influenced by the effects of early learning and the male and female sex-role stereotyping that commonly takes place.

Summary

In this paper an attempt was made to search the literature for studies which would indicate whether or not sex-role stereotyping (via language) has been examined for its impact on people who take interest measures. A careful scrutiny revealed no empirical data to evaluate the hypothesis that the linguistic struc-

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ture of items does or does not influence results on career interest inventories. Conclusions drawn from other fields (applied sociolinguistics, social psychology, clinical psychology) strongly support the need for the linguistic aspect of inventories to be examined via a series of studies. The APA and NVGA guidelines for the construction of tests and for career information materials also support the need for such a series of studies in the interest of insuring unbiased tests.

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REFERENCES

American Psychological Association, Standards for Educational Psychological Tests, 1974, in press.

Bem, S.L. and Bem, D.J. Sex segregated want ads: Do they discourage female job applicants? In J.H. Hamsher and H. Sigal (Ed.), Psychology and Social Issues. New York: The MacMillan Company, 1973, 261-265.

Bergman, B.R. A policy agenda for women's economic problems, Paper presented at hearings of the Joint Economic Committee on the economic problems of women, 1973.

Birk, J.M., Banbanel, L., Brooks, L., Herman, M., Juhasz, J., Seltzer, R. and Tangri, S.S. A content analysis of sexual bias in commonly used psychology textbooks. Unpublished APA Task Force Report, 1973.

Birk, J.M., Cooper, J. and Tanney, M.F. Racial and sex-role discrimination in career information illustrations. Paper presented at the APA Convention, Montreal, 1973.

Campbell, D.P. Assessing Vocational Interests: A Manual for the Strong-Campbell Interest Inventory. Stanford: Stanford University Press, 1974, in press.

Campbell, D.P. Layout of the new Strong profile. Paper presented at the Symposium on Interest Measurement, American Psychological Association, 1973.

Campbell, D.P. Reaction to Schlossberg and Goodman's "Imperative for Change". Impact, 1972, 2, 1, 29-31.

Constantinople, A. Masculinity-Feminity: An end to a famous dictum? Psychological Bulletin, 1973, 80, 389-407.

Cronbach, L.J. Essentials of Psychological Testing. New York: Harper & Row, 1970.

Diamond, E.A. The Masculinity-Feminity Scale in interest measurement: An idea whose time has passed. Paper presented at a symposium, American Psychological Association Convention, 1972.

Farb, P. Word Play. New York: Alfred A. Knopp, 1974.

Frasher, R. and Walker, A. Sex roles in early reading textbooks. Reading Teacher, 1972, 25, 741-749.

BEST COPY AVAILABLE

Grambs, J.D. Sex stereotypes in instructional materials, literature and language: A survey of research. Women Studies Abstracts, 1972, 1, 1-4, 91-94.

Holland, J.L. Some guidelines for reducing systematic biases in the delivery of vocational services. Professional Manual for Measurement and Evaluation in Guidance, 1974, 6, 4, 210-218.

Huth, C.M. Measuring women's interests: How useful? Personnel and Guidance Journal, 1973, 51, 539-545.

Huth, C.M. Reply to Campbell. Personnel and Guidance Journal, 1973, 51, 10, 697.

Kuder, G.F. The Kuder Occupational Interest Manual, Form DD. Chicago: Science Research Associates, 1971.

Kuder, F. Some principles of interest measures. Educational and Psychological Measurement, 1970, 30, 205-226.

Key, M.R. The role of male and female in children's books - Dispelling all doubt. Wilson Library Bulletin, 1971, 46, 167-176.

National Vocational Guidance Association, Career development and career guidance. National Vocational Guidance Association Newsletter, 1973, 13, 1, 5-8.

Pirtle, C. Report on possible sex bias in the Holland Self-Directed Suicide: Unpublished manuscript. Iowa State University, 1974.

Schlossberg, N. and Goodman, J. Imperative for change: Counselor use of the SVIB. Impact, 1972, 2, 1, 25-29.

Schneider, J.W. and Hacker, S.L. Sex-role imagery and the use of the generic "man" in introductory texts: A case in the sociology of sociology. The American Sociologist, 1973, 8, 12-18.

Scott, Foresman and Company. Guidelines for Improving the Image of Women in Textbooks. Glenview, Illinois: undated.

Strong, E.K., Jr. Good and poor interest items. Journal of Applied Psychology, 1962, 46, 269-275.

Tittle, C.K. Sex bias in educational measurement: Fact or fiction? Measurement and Evaluation in Guidance, 1974, 6, 4, 219-226.

Tittle, C.K. Women and educational testing: A selective review of the research literature and testing practices. New York: Office of Teacher Education, City University of New York, 1973.

BEST COPY AVAILABLE

U.S. Department of Labor. Office of Information, 1973.

Webb, E.J., Campbell, D.T., Schwartz, R.D. and Sechrest, L. Unobtrusive Measures: Nonreactive Research in the Social Sciences. Chicago: Rand McNally, 1961.

Weitzman, L.J., Eifler, D., Hokada, E. and Ross, C. Sex-role socialization in picture books for pre-school children. American Journal of Sociology, 1973, 77, 6, 1125-1150.

Weitzman, L.J. and Bustamante, D. Sex role stereotyping in textbooks. Presentation at the National Education Association Conference on Sex Role Stereotypes, Arlie, Virginia, 1972.

Zener, T.B. and Schnuelle, L. An evaluation of the Self-Directed Search. Report No. 124. Baltimore: Johns Hopkins University, Center for Social Organization of Schools, 1972.